Remote Sensing Applications Division (RSAD)

CDR Program Office

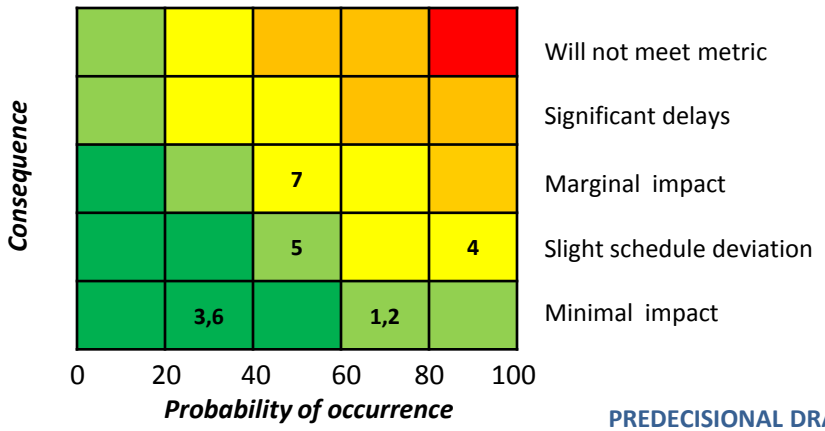
Weekly Report for February 25, 2011
John J Bates, Chief

CDR Program Office
FY11 Climate Data Records

Weekly Report – Feb 25, 2011

1. **Sea Ice**
   - Working with archive branch on SA
2. **Mean Layer Temperatures**
   - Received SA questionnaire
3. **Microwave (MW) Sounder FCDR**
   - NSTR
4. **Microwave (MW) Imager FCDR**
   - Documentation efforts will likely cause a slight schedule slip
5. **Aerosol Properties**
   - Convert full dataset to netCDF – need to decide how to serve
6. **Outgoing Longwave (LW) - Top of Atmosphere**
   - Completed processing of the last year in time series
7. **Sea Surface Temperature**
   - Awaiting funding decision on documentation

Risk Matrix



Risk and Mitigation

MW Imager FCDR –
- POC is responsible for file conversion and documentation
- PI delivered source code and HDF dataset only

Sea Surface Temp –
- Reordering various portions of data to try and fill in holes
- Source code documentation requires additional hire

PREDECISIONAL DRAFT INFORMATION

Sea Ice

CDR Product: TCDR - Sea ice concentration/extent/area estimates, 1979-2010 (20 GB)
GEOSS Societal Benefit: Climate, Water, Ecosystems, Agriculture

Project Status

- Sent sample data flow diagrams to PI
- Sent Submission Agreement questionnaire to PI

Next Action / Milestone

- Capture CDR delivery and monthly updates in SA agreement
- Verify delivery schedule with PI

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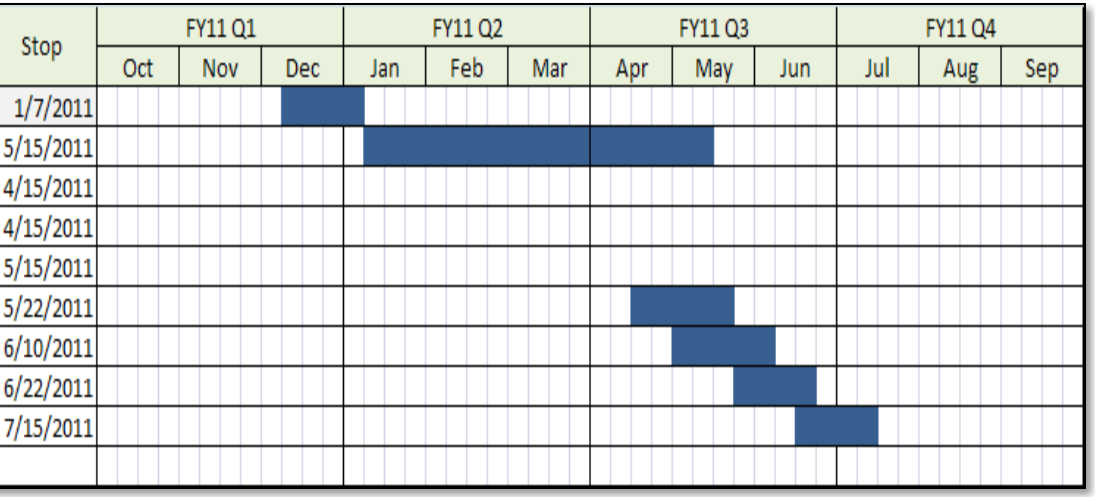
Project Risks

- PI unable to work on docs and data conversion until end of Mar
- NSIDC will be serving the data to the public, PI concerned about long term support
- The codes that will be delivered are modular pieces of a much larger code and will require effort to separate and document

ID	Task Name	Status	Start	Stop
1	Initial Assessment	100	12/7/2010	1/7/2011
2	Transfer Prep	40	1/7/2011	5/15/2011
2a	Comment Source Code	50	1/15/2011	4/15/2011
2b	Create Documents	50	1/7/2011	4/15/2011
2c	Convert data from binary to NetCDF	0	3/1/2011	5/15/2011
3	Tranfer Code, Docs, and Data	0	4/15/2011	5/22/2011
4	Validate Code, Docs, and Data	0	5/1/2011	6/10/2011
5	Archive Code, Docs, and Data	0	5/15/2011	6/22/2011
6	Provide Access to Code, Docs, and Data	0	6/15/2011	7/15/2011



Mean Layer Temperatures

CDR Product: TCDR - Monthly gridded anomalies for three layers (LT, MT, LS), 1978-2010 (60 GB)
GEOSS Societal Benefit: Energy, Climate, Ecosystems

Project Status

- Received Submission Agreement questionnaire from PI
  - Data is in ASCII format

Next Action / Milestone

- Work on source code and documentation

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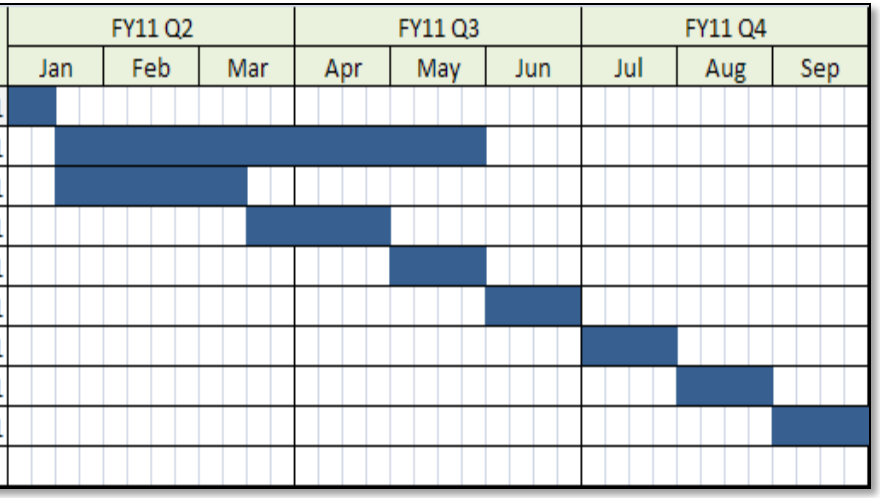
Project Risks

- Data is ASCII format – Need to know who converts to NetCDF if required?
- Limited resources available to work on code clean up, comments and documentation

ID	Task Name	Status	Start	Stop
1	Initial Assessment	100	1/1/2011	1/15/2011
2	Transfer Prep	20	1/15/2011	5/30/2011
2a	Comment Source Code	50	1/15/2011	3/15/2011
2b	Create Documents	20	3/15/2011	4/30/2011
2c	Format Data for delivery	0	4/30/2011	5/30/2011
3	Tranfer Code, Docs, and Data	0	6/1/2011	6/30/2011
4	Validate Code, Docs, and Data	0	7/1/2011	7/30/2011
5	Archive Code, Docs, and Data	0	8/1/2011	8/30/2011
6	Provide Access to Code, Docs, and Data	0	9/1/2011	9/30/2011



Microwave Sounder FCDR

CDR Product: FCDR - AMSU- A Brightness Temperature, CH 8 & 9; 2001 - 2010 (100 GB)
GEOSS Societal Benefit: Climate, Water, Ecosystems

Project Status

- NSTR
- Sent Submission Agreement questionnaire
  - PI is working on form

Next Action / Milestone

- Fill out SA questionnaire
- Confirm schedule

Project Risks

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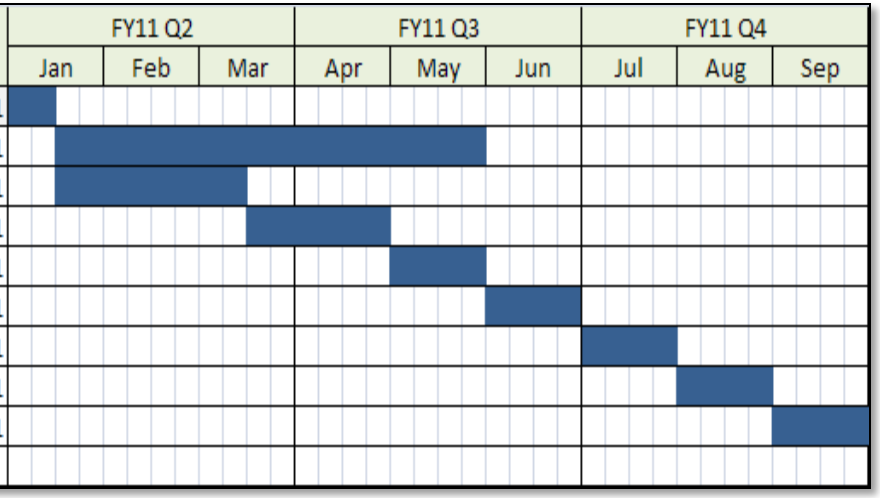
- Minimal
- PI concerned about source code release

ID	Task Name	Status	Start	Stop
1	Initial Assessment	100	1/1/2011	1/15/2011
2	Transfer Prep	50	1/15/2011	5/30/2011
2a	Comment Source Code	50	1/15/2011	3/15/2011
2b	Create Documents	50	3/15/2011	4/30/2011
2c	Format Data for delivery	50	4/30/2011	5/30/2011
3	Tranfer Code, Docs, and Data	0	6/1/2011	6/30/2011
4	Validate Code, Docs, and Data	0	7/1/2011	7/30/2011
5	Archive Code, Docs, and Data	0	8/1/2011	8/30/2011
6	Provide Access to Code, Docs, and Data	0	9/1/2011	9/30/2011



Microwave Imager FCDR

CDR Product: FCDR - Intercalibrated SSM/I Brightness Temperatures (v6), 1987 – 2010 (1720 GB)
GEOSS Societal Benefit: Climate, Water, Ecosystems

Project Status

- POC is in process of converting data to NetCDF
- Received non-NetCDF data in archive (Jul 1987-Aug 2010)

Next Action / Milestone

- Complete conversion to NetCDF
- Work on documentation

Project Risks

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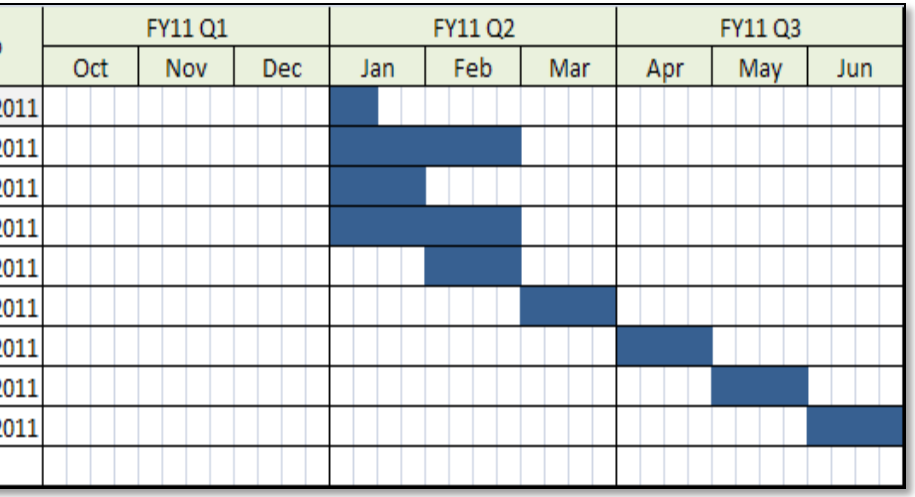
- PI will not assist making the data an operational CDR
- RSAD will be responsible for converting data to NetCDF-4 and commenting the code.
- Received PI's coefficient description – POC can create documentation but will likely not meet current schedule

ID	Task Name	Status	Start	Stop
1	Initial Assessment	100	1/1/2011	1/15/2011
2	Transfer Prep	20	1/1/2011	2/28/2011
2a	Comment Source Code	40	1/1/2011	1/30/2011
2b	Create Documents	10	1/1/2011	2/28/2011
2c	Format data for delivery	10	2/1/2011	2/28/2011
3	Tranfer Code, Docs, and Data	50	3/1/2011	3/31/2011
4	Validate Code, Docs, and Data	20	4/1/2011	4/30/2011
5	Archive Code, Docs, and Data	0	5/1/2011	5/31/2011
6	Provide Access to Code, Docs, and Data	0	6/1/2011	6/30/2011



Aerosol Properties

CDR Product: TCDR - Aerosol Optical Thickness (AOT), 1981 – 2010 (430 GB)
GEOSS Societal Benefit: Disasters, Health, Climate, Ecosystems

Project Status

- Bill is converting to NetCDF
- Code documentation is ready for review
- Approved CDR subset – Researching best way to serve to public
- Coordinating with archive branch on naming conventions
- Tom has created an ATBD using new template – feedback to follow

Next Action / Milestone

- Start the HDF to netCDF conversion
- Get with access branch to determine best way to flag CDR variables

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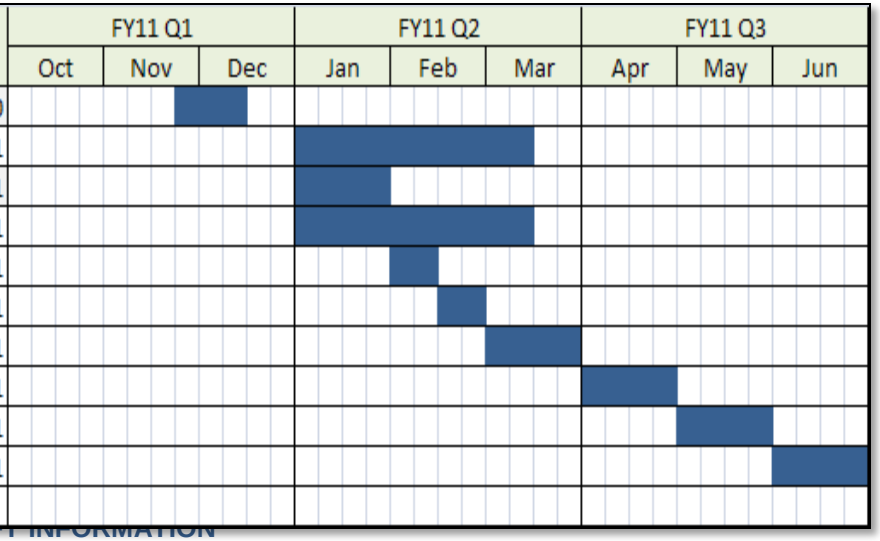
Project Risks

- Minimal for IOC
- Good candidate to test NRT production (FOC); would require significant changes to the current manual intensive process

ID	Task Name	Status	Start	Stop
1	Initial Assessment	100	11/29/10	12/15/10
2	Transfer Prep	60	1/1/2011	3/15/2011
2a	Comment Source Code	100	1/1/2011	1/30/2011
2b	Create Documents	70	1/1/2011	3/15/2011
2c	Subset CDR variables	5	2/1/2011	2/14/2011
2d	Format to netCDF	5	2/15/2011	2/28/2011
3	Tranfer Code, Docs, and Data	5	3/1/2011	3/31/2011
4	Validate Code, Docs, and Data	0	4/1/2011	4/30/2011
5	Archive Code, Docs, and Data	0	5/1/2011	5/31/2011
6	Provide Access to Code, Docs, and Data	0	6/1/2011	6/30/2011



Outgoing Longwave Radiation - Top of Atmosphere

CDR Product: FCDR - HIRS OLR Time Series, monthly mean, 2.5 deg, 1979 – 2010 (CDR : 20 MB, Orbit Files: 700 GB)
GEOSS Societal Benefit: Energy, Climate, Ecosystems

Project Status

- Received core source code and passed security review
- Received SA questionnaire from PI
- Verified delivery schedule
- Completed processing for last year in time series

Next Action / Milestone

- Start submission agreement process
- Work on creating necessary documentation
- Convert to NetCDF

Project Risks

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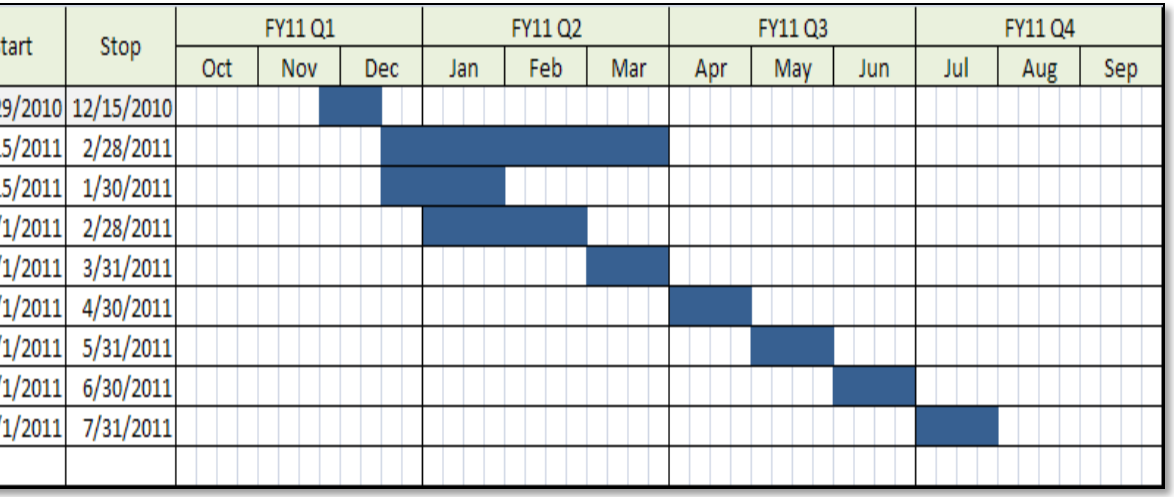
- Minimal risk involved

ID	Task Name	Status	Start	Stop
1	Initial Assessment	100	11/29/2010	12/15/2010
2	Transfer Prep	75	12/15/2011	2/28/2011
2a	Comment Source Code	90	12/15/2011	1/30/2011
2b	Create Documents	75	1/1/2011	2/28/2011
2c	Format data for delivery	50	3/1/2011	3/31/2011
3	Tranfer Code, Docs, and Data	0	4/1/2011	4/30/2011
4	Validate Code, Docs, and Data	0	5/1/2011	5/31/2011
5	Archive Code, Docs, and Data	0	6/1/2011	6/30/2011
6	Provide Access to Code, Docs, and Data	0	7/1/2011	7/31/2011



PREDECISIONAL DRAFT INFORMATION

Sea Surface Temperature

CDR Product: TCDR - Pathfinder v5.2, Daily nighttime and daytime global SST fields, 1981-2010, (4000 GB)
GEOSS Societal Benefit: Climate, Water, Ecosystems, Agriculture

Project Status

- Received NetCDF conversion code and a sample of NetCDF output from NODC
- First reprocessing completed but some data gaps were present

Next Actions / Milestone

- Need Management decision on funding documentation
- 2nd reprocessing: Get missing data from CLASS, use OI lake temps

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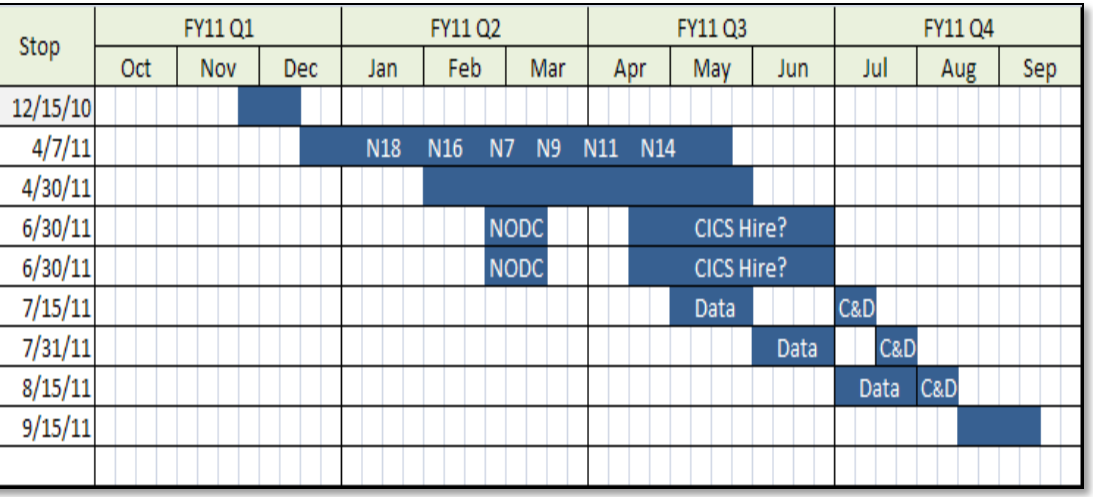
Project Risks

- Test output still needs to be QC'd
- Processing from level 1b to HDF has been accomplished for all sats, some missing data gaps exist
- Source code documentation requires additional hire
- Final SST data set will be maintained at NODC

ID	Task Name	Status	Start	Stop
1	Initial Assessment	100	11/29/10	12/15/10
2	Run SeaDAS code (v5.2) 1981-2010	50	12/15/10	4/7/11
3	Run HDF to netCDF conversion code	25	2/1/11	4/30/11
4	Comment Source Code	5	2/15/11	6/30/11
5	Create Documents	5	2/15/11	6/30/11
6	Tranfer Copy of Data, Code and Docs	5	5/1/11	7/15/11
7	Validate Data, Code and Docs	5	6/1/11	7/31/11
8	Archive Data, Code and Docs	0	7/1/11	8/15/11
9	Provide Access to Data, Code and Docs	0	8/15/11	9/15/11
	(Point to Data served at NODC)			



PREDECISIONAL DRAFT INFORMATION

BACKUP CDR -- ISCCP D1

CDR Product: TCDR - Mean Cloud Amount, 2.5 deg res, 3 hourly, 1983-2008, (1.4 GB)
GEOSS Societal Benefit: Energy, Climate, Water, Agriculture

Project Status

- NSTR
- ISCCP is a backup CDR to ensure the NCDC performance metric is successfully met.
- Initial Assessment – Data and source code are very mature (could easily fill the gap if any of the FY11 CDRs fail to deliver)
- Product is already being archived

Next Action / Milestone

- No effort - unless it looks like one of the others may fail, then primary work will be on documentation

Project Risks

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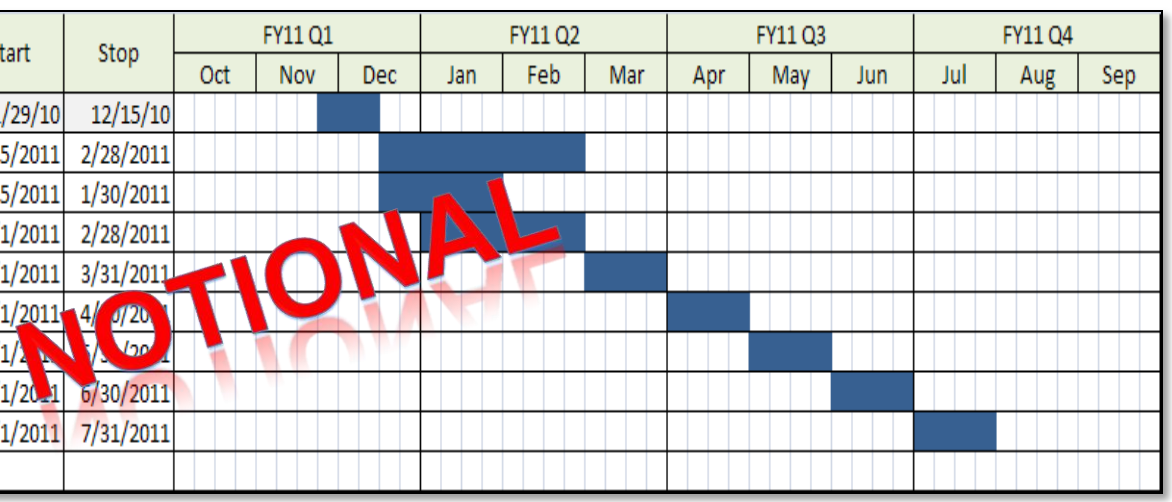
- Minimal

ID	Task Name	Status	Start	Stop
1	Initial Assessment	Complete	11/29/10	12/15/10
2	Transfer Prep		12/15/2011	2/28/2011
2a	Comment Source Code		12/15/2011	1/30/2011
2b	Create Documents		1/1/2011	2/28/2011
2c	Format data for delivery		3/1/2011	3/31/2011
3	Tranfer Code, Docs, and Data		4/1/2011	4/30/2011
4	Validate Code, Docs, and Data		5/1/2011	5/31/2011
5	Archive Code, Docs, and Data		6/1/2011	6/30/2011
6	Provide Access to Code, Docs, and Data		7/1/2011	7/31/2011



FUTURE CDR -- Global Surface Albedo

CDR Product: TCDR – GOES coverage Surface Albedo, 10 day blocks, 4 km res, 2000-2003 (initially), (XX GB)
GEOSS Societal Benefit: Climate, Ecosystems, Agriculture

Project Status

- Should be able to process a GOES test set by end of May
- Initial Assessment revealed it would not meet CDR IOC requirements by FY11, but the High Visibility of this project will ensure that work continues to progress as quickly as possible

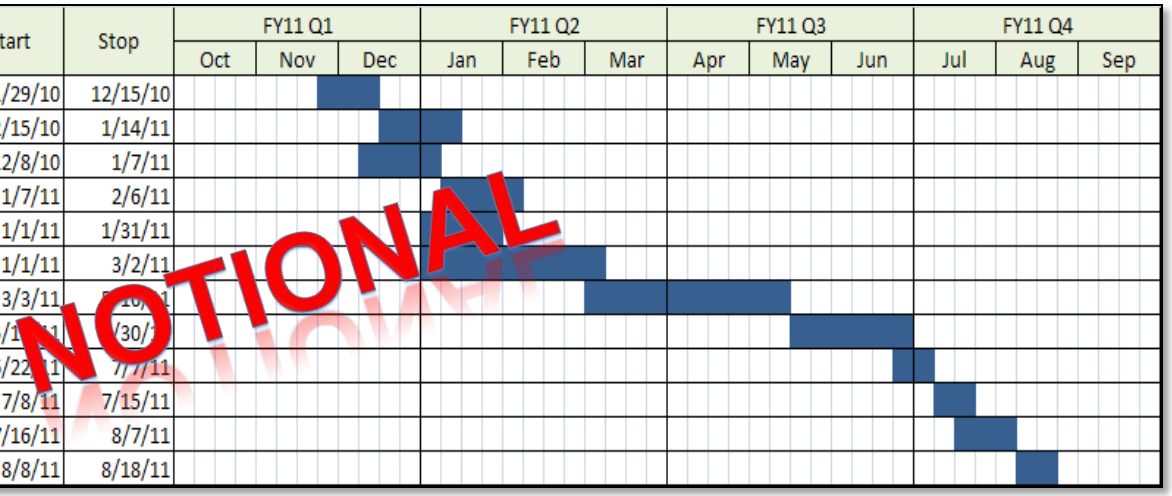
Next Action / Milestone

- Stage GOES test data
- New timeline will need to be established

Project Risks

- Requires extensive coordination with EUMETSAT for code, documentation and validation

ID	Task Name	Status	Start	Stop
1	Initial Assessment		11/29/10	12/15/10
2	Stage 4 yrs of GOES data		12/15/10	1/14/11
3	Write GOES preprocessing sw		12/8/10	1/7/11
4	Write Model Ozone/H2Ov ingest		1/7/11	2/6/11
5	Generate GOES-12 LUT		1/1/11	1/31/11
6	Format Data for archive (NetCDF4)		1/1/11	3/2/11
7	Receive/test AREA ingestor		3/3/11	[illegible]
8	Processing - 4 year POR		5/[illegible]	[illegible]
9	Tranfer Remaining Docs		6/22[illegible]	[illegible]
10	Validate Code, Docs, and Data		7/8/11	7/15/11
11	Archive Code, Docs, and Data		7/16/11	8/7/11
12	Provide Access to Code, Docs, and Data		8/8/11	8/18/11



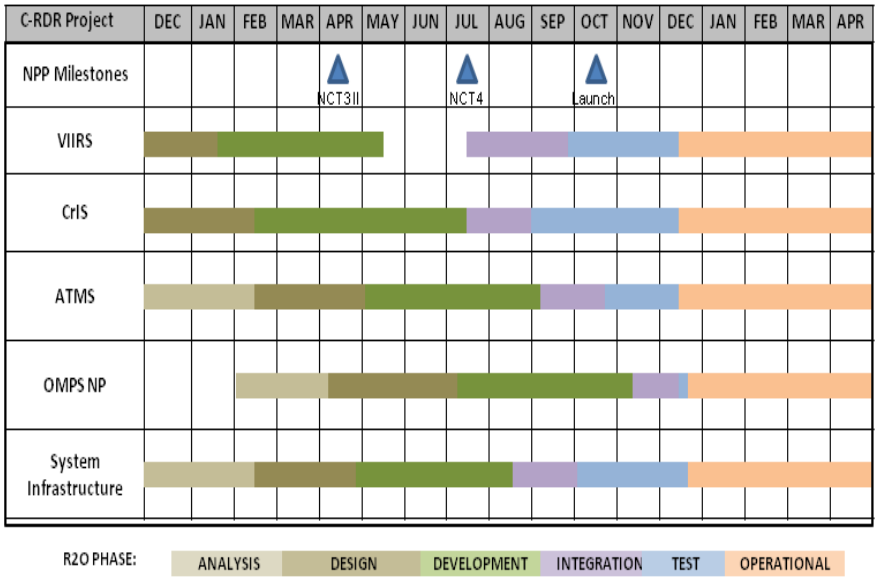
PREDECISIONAL DRAFT INFORMATION

CDR Program Office
NPP/JPSS Climate Raw Data Records (C-RDRs) Project

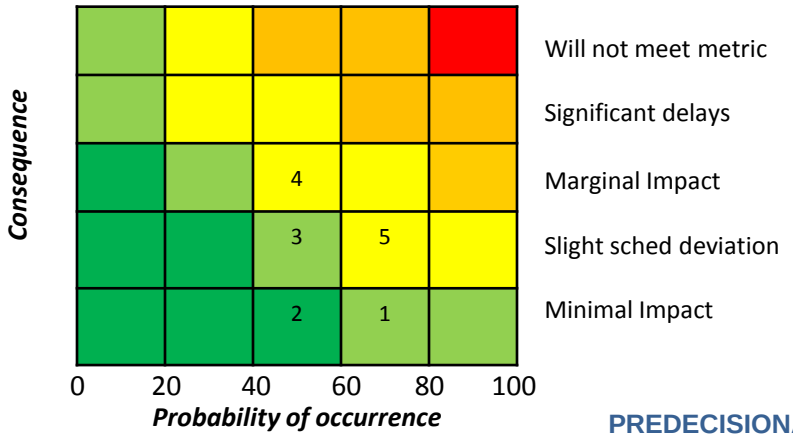
Weekly Report – Feb 25, 2011

1. **VIIRS**
   - Evaluating ADL for processing aggregated granules
2. **CrIS**
   - Defining the netCDF4 structure for the C-RDR
3. **ATMS**
   - IDPS ATMS algorithm executing in ADL at NCDC
4. **OMPS NP**
   - Postponed to focus resources on system infrastructure
5. **System Infrastructure**
   - Working with RSAD projects to define process to ingest and transfer data to CLASS

Initial draft of System Acceptance Test (SAT) complete and being reviewed internally.



Risk Matrix



Risk and Mitigation

VIIRS, CrIS, ATMS, OMPS NP, System Infrastructure -

- Short schedule to NPP launch on October 2011. Hiring additional software developers on hold. Need to re-adjust the schedule.
- Operational software is under maintenance, updated versions may affect C-RDR ported version.

System Infrastructure –

- Availability of automated receipt of NPP RDRs from the CLASS system. Need to test ingest of RDRs from CLASS and develop an automated mechanism for re-requesting data.
- Capability of CLASS to ingest and archive C-RDRs.

Visible Infrared Imaging Radiometer Suite (VIIRS)

C-RDR Product: Raw sensor measurements with usage and provenance metadata in easily accessible netCDF4 format
GEOSS Societal Benefit: Climate, Water, Ecosystems, Agriculture, Biodiversity, Energy

Project Status

- Writing code to process multiple granules
- Ported operational algorithms (NASA Land PEATE)
- Defining the C-RDR format, data, and metadata
- Preparing the VIIRS C-RDR Product Specification for review
- Developing software to create the C-RDR
- Converting the supporting data files to netCDF4
- Merged latest Land PEATE and IDPS modifications into C-RDR baseline
- Evaluating IDPS latest release changes in Algorithm Development Library (ADL) baseline
- Evaluating ADL for processing granule aggregations

Next Action / Milestone

- Development complete for the VIIRS C-RDR

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Project Risks

- NPP Launch Date: October 25, 2011
- Complexity of the NPP/JPSS RDRs and operational software
- Operational software is under maintenance, updated versions may affect C-RDR ported version

Project Schedule

ID	Task Name	Status	Start	Stop
1	Analysis	Completed	10/23/2009	5/4/2010
2	Design	Completed	5/6/2010	1/5/2011
3	Development		1/6/2011	5/13/2011
3a	Develop VIIRSS processing component	30%	1/6/2011	3/4/2011
3b	Test VIIRS processing component		3/7/2011	5/13/2011
4	Integration		7/21/2011	8/26/2011
5	Test		9/1/2011	12/19/2011
5a	Dry Runs/some with launch data		9/1/2011	12/12/2011
5b	System Acceptance Test		12/12/2011	12/19/2011
6	Operational		12/20/2011	

Cross-track Infrared Sounder (CrIS)

C-RDR Product: Raw sensor measurements with usage and provenance metadata in easily accessible netCDF4 format
GEOSS Societal Benefit: Climate, Water, Energy

Project Status

- Ported operational algorithms (Space Dynamics Lab at Utah State)
- Defining the C-RDR format, data, and metadata
- Merging updated IDPS code and formats into the C-RDR baseline
- Tracking down a version of the CrIS code with telemetry updates
- Defining the netCDF4 structure for the C-RDR

Next Action / Milestone

- Complete definition of CrIS C-RDR

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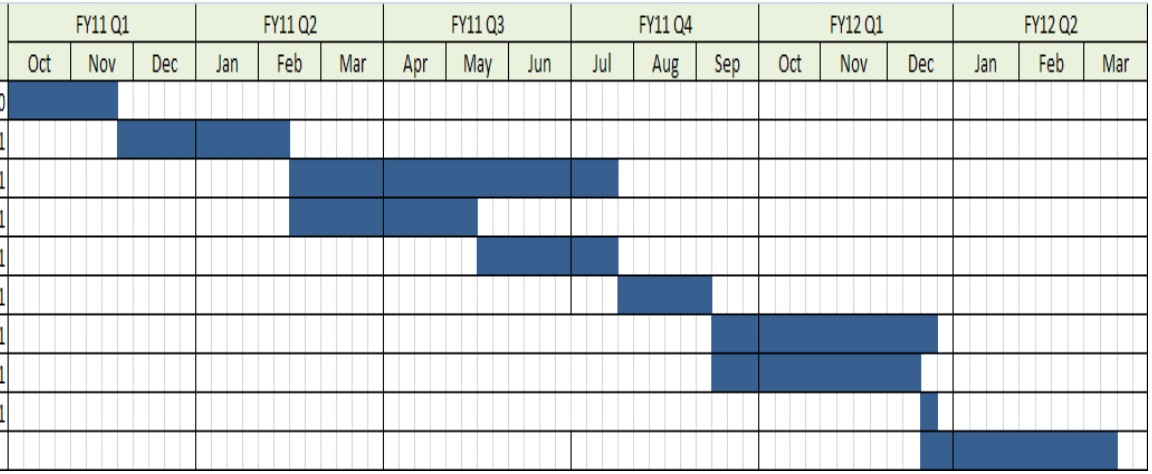
Project Risks

- NPP Launch Date: October 25, 2011
- Complexity of the NPP/JPSS RDRs and operational software
- Operational software is under maintenance, updated versions may affect C-RDR ported version
- Correctly identify additional data required for the C-RDR

Project Schedule

ID	Task Name	Status	Start	Stop
1	Analysis	Completed	8/16/2010	11/24/2010
2	Design	80%	11/26/2010	2/15/2011
3	Development		2/16/2011	7/22/2011
3a	Develop CrIS processing component		2/16/2011	5/11/2011
3b	Test CrIS processing component		5/12/2011	7/22/2011
4	Integration		7/25/2011	8/19/2011
5	Test		9/1/2011	12/19/2011
5a	Dry Runs/some with launch data		9/1/2011	12/12/2011
5b	System Acceptance Test		12/12/2011	12/19/2011
6	Operational		12/20/2011	



Advanced Technology Microwave Sounder (ATMS)

C-RDR Product: Raw sensor measurements with usage and provenance metadata in easily accessible netCDF4 format
GEOSS Societal Benefit: Climate, Water, Energy

Project Status

- Now executing at NCDC w/o problems
- Obtained ported operational algorithms (Space Dynamics Lab at Utah State)
- Working to get the ported IDPS software running at NCDC
- Evaluating IDPS algorithms in ADL
- IDPS ATMS algorithm in ADL executing at NCDC

Next Action / Milestone

- Define the C-RDR data and metadata

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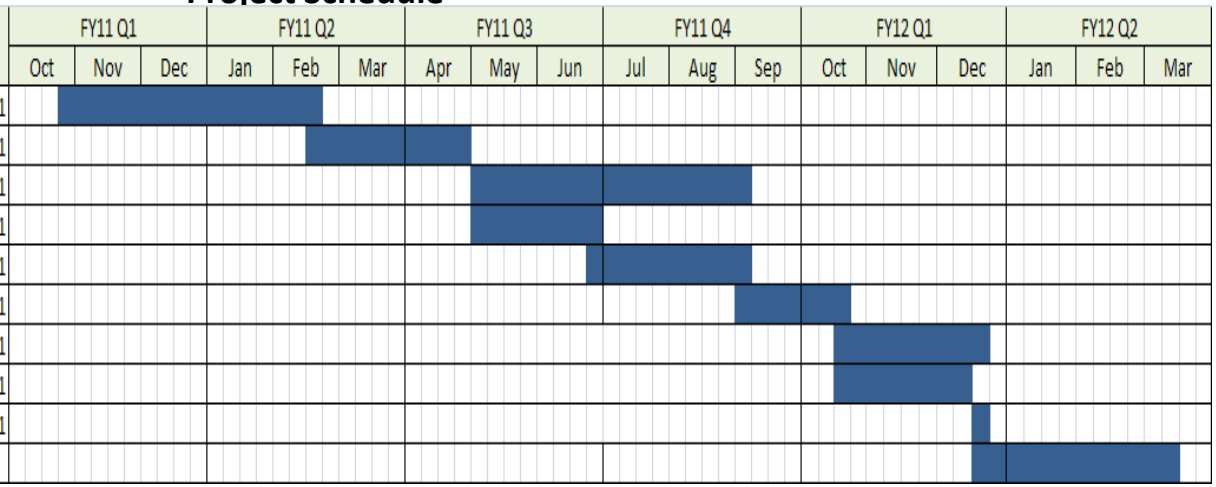
Project Risks

- NPP Launch Date: October 25, 2011
- Complexity of the NPP/JPSS RDRs and operational software
- Operational software is under maintenance, updated versions may affect C-RDR ported version
- Developer shares time working NPP and CLASS issues.

Project Schedule

ID	Task Name	Status	Start	Stop
1	Analysis	Complete	10/29/2010	2/10/2011
2	Design		2/11/2011	4/29/2011
3	Development		5/2/2011	9/7/2011
3a	Develop ATMS processing component		5/2/2011	6/27/2011
3b	Test ATMS processing component		6/28/2011	9/7/2011
4	Integration		9/8/2011	10/20/2011
5	Test		10/21/2011	12/19/2011
5a	Dry Runs/some with launch data		10/21/2011	12/12/2011
5b	System Acceptance Test		12/12/2011	12/19/2011
6	Operational		12/20/2011	



Ozone Mapping Profile Suite (OMPS) Nadir Profiler (NP)

C-RDR Product: Raw sensor measurements with usage and provenance metadata in easily accessible netCDF4 format
GEOSS Societal Benefit: Climate, Energy

Project Status

- Delayed OMPS NP development to focus resources on system infrastructure and other sensors

Postponed

Next Action / Milestone

- Obtain IDPS software when the OMPS modifications stabilize

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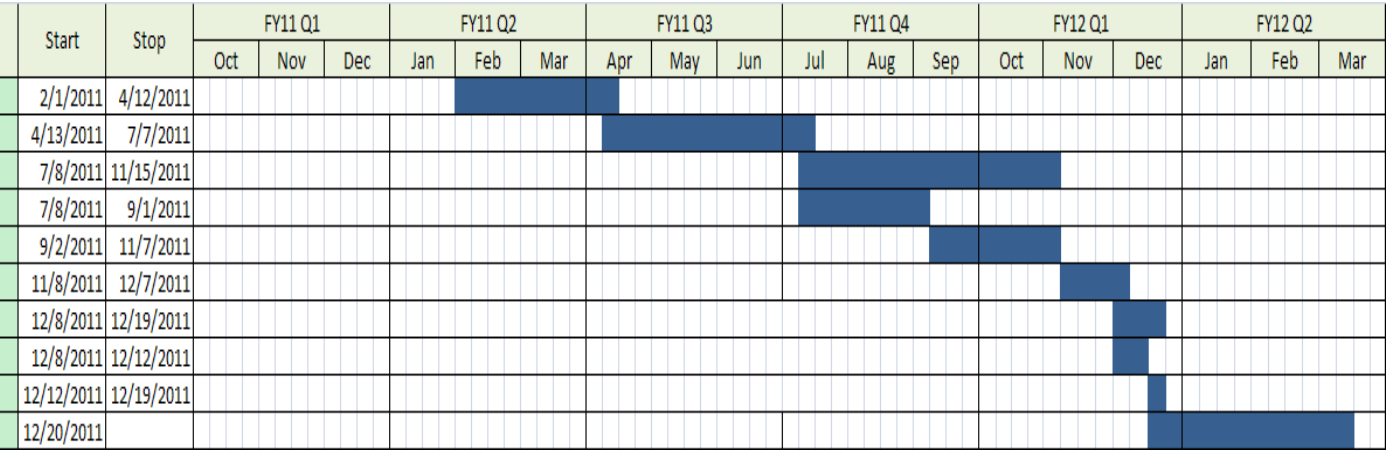
Project Risks

- OMPS NP C-RDRs will not be available at launch. Mitigation: hire another developer for OMPS NP.
- Complexity of the NPP/JPSS RDRs and operational software
- Operational software is under maintenance, updated versions may affect C-RDR ported version

Project Schedule

ID	Task Name	Status	Start	Stop
1	Analysis		2/1/2011	4/12/2011
2	Design		4/13/2011	7/7/2011
3	Development		7/8/2011	11/15/2011
3a	Develop OMPS NP processing component		7/8/2011	9/1/2011
3b	Test OMPS NP processing component		9/2/2011	11/7/2011
4	Integration		11/8/2011	12/7/2011
5	Test		12/8/2011	12/19/2011
5a	Dry Runs/some with launch data		12/8/2011	12/12/2011
5b	System Acceptance Test		12/12/2011	12/19/2011
6	Operational		12/20/2011	



PREDECISIONAL DRAFT INFORMATION

C-RDR System Infrastructure

C-RDR Product: Infrastructure to automate the production of the C-RDRs.
GEOSS Societal Benefit: None

Project Status

- Analyzing existing ingest and dissemination capabilities.
- Working with CLASS to test ingest of RDRs.
- Working on database infrastructure design.
- Working on the Archive Recommendation Package for C-RDRs.
- Analysis complete of existing infrastructure.
- Working with RSAD projects to define process to transfer data to and from CLASS.

Next Action / Milestone

- Complete design of system infrastructure.

Y

Project Risks

- NPP Launch Date: October 25, 2011
- Need to hire additional software developer to meet schedule.
- Ability of CLASS to provide full stream of RDRs and ability to ingest stream of C-RDRs.
- Need to develop an automated re-request mechanism for CLASS.

Project Schedule

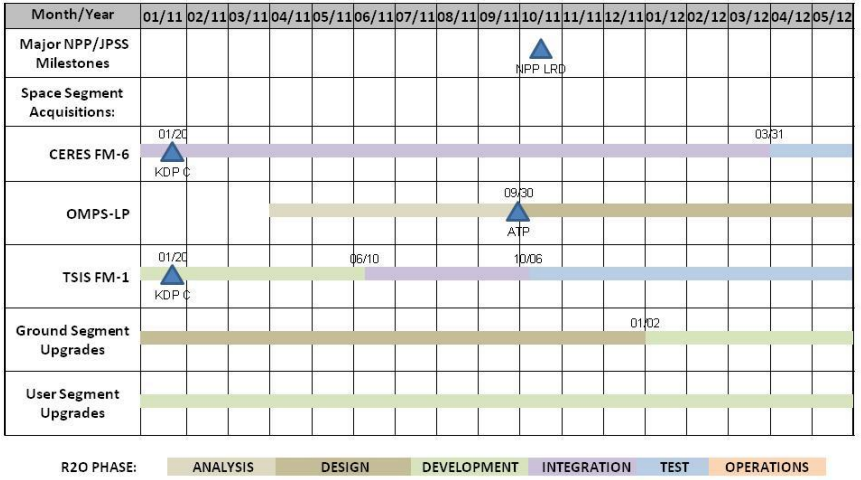
ID	Task Name	Status	Start	Stop
1	Analysis	Completed	9/29/2010	2/10/2011
2	Design		2/11/2011	4/22/2011
3	Development		3/7/2011	8/9/2011
3a	Develop & Test sensor algorithms processing		4/25/2011	8/9/2011
3b	Develop & Test ingest		3/7/2011	4/8/2011
3c	Develop & Test dissemination		4/11/2011	5/27/2011
4	Integration		7/21/2011	9/28/2011
5	Test		9/1/2011	12/19/2011
5a	Dry Runs/some with launch data		9/1/2011	12/12/2011
5b	System Acceptance Test		12/12/2011	12/19/2011
6	Operational		12/20/2011	

CDR Program Office
JPSS Climate Sensors and Program Status

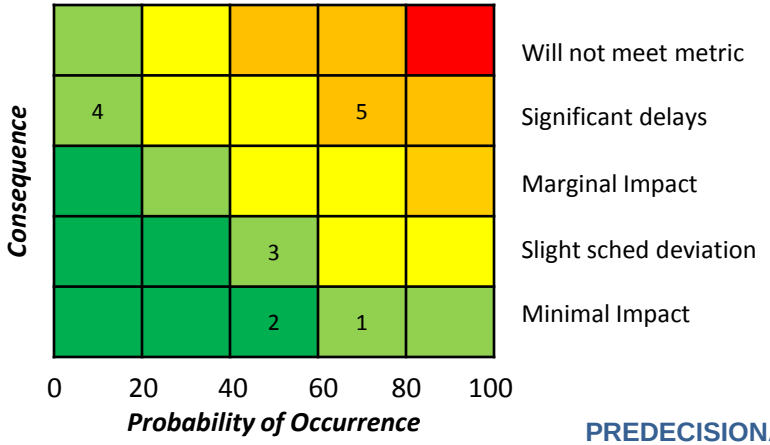
Current Status

- JPSS Climate Sensors are all on track:
  - CERES FM-6 will fly on JPSS-1
  - OMPS-LP will fly on JPSS-2
  - TSIS FM-1 will fly on a TBD Free-Flyer
- JPSS Program is still in transition:
  - JPSS L1RD, Version 4.4, dated December 15, 2010 is latest draft; it still has not been signed
  - Launch Readiness Dates (LRDs) are 2015 for JPSS-1 and 2018 for JPSS-2
  - NOAA/NESDIS/OSD will provide funding to JPSS Program for Ground Segment Upgrades and post-delivery support
- User Segment Upgrades are behind schedule

Current Schedules



Risk Matrix



Risks and Mitigation

- While TSIS FM-1 acquisition is on track, platform it will fly on is still TBD
- FY-11 funding for CERES FM-6,OMPS-LP, and TSIS FM-1 R2O transition activities, and User Segment upgrades may be in jeopardy due to Congressional actions
  - Could cause significant delays in the delivery of these capabilities and readiness for NPP and JPSS-1 launches
- R2O Transition and Instrument Support teams for CERES FM-6 and TSIS FM-1 are needed ASAP
  - Need to support JPSS Instrument Staff and NASA/LaRC CERES Science Team meetings

2/25/2011

= On-track = Potential management action required = Management attention required

Clouds & Earth's Radiant Energy System (CERES) FM-6

Purpose: Continuity of Earth Radiation Budget (ERB) Measurements
GEOSS Societal Benefit: Climate

Project Summary

• CERES will fly on the NPP and JPSS-1 satellites which have LRDs in late 2011 and 2015, respectively
• NOAA/NESDIS/OSD funded the acquisition of the CERES FM-5 (on NPP) and FM-6 (on JPSS-1) instruments by NASA's Langley Research Center (LaRC) and Northrup Grumman Aerospace Systems (NGAS)
• OSD is also responsible, as the instrument provider, for any required upgrades to the JPSS Common Ground Segment (CGS) and CERES FM-6 post-launch instrument support
• JPSS Program is responsible for integrating and flying the CERES FM-6 instrument on the JPSS-1 spacecraft, post-launch satellite operations, data collection and initial processing, and delivering processed data via the Interface Data Processing Segment (IDPS) to the NOAA Archive

Next Action/Milestone

• CERES Instrument PER is scheduled for February 2011

Project Risks

• Changing the total and shortwave radiometric accuracy requirements to accommodate limitations in the current hardware design for FM-6
  – NASA's performance specifications will become the threshold & NOAA's requirements will be the objective
• Defining the scope of post-launch support
• Negotiating an agreement between NOAA/NESDIS/NCDC and NASA/LaRC for the R2O transition of CERES higher-level data processing (or reprocessing) and Climate Data and Information Record (CDR/CIR) generation capabilities

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Acquisition of CERES FM-6 Instrument															
2	Acquisition of Ground Segment Upgrades															
3	Acquisition of User Segment Upgrades															
3a	Analysis															
3b	Design															
3c	Development															
3d	Integration															
3e	Test															
3f	Operations															

Ozone Mapping & Profiler Suite-Limb Profiler (OMPS-LP)

Purpose: Continuity of Stratospheric Ozone Measurements
GEOSS Societal Benefit: Climate and Energy

Project Summary

• OMPS-LP will fly on the NPP and JPSS-2 satellites which have LRDs in late 2011 and 2018, respectively
• NOAA/NESDIS/OSD has funded the acquisition of the OMPS-LP instruments by NASA (for NPP) and the JPSS Program (for JPSS-2)
• OSD is also responsible, as the instrument provider, for any required upgrades to the JPSS Common Ground Segment (CGS) and OMPS-LP post-launch instrument support
• JPSS Program is responsible for integrating and flying the OMPS-LP instrument on the JPSS-2 spacecraft, post-launch satellite operations, data collection and initial processing, and delivering processed data via the Interface Data Processing Segment (IDPS) to the NOAA Archive

Next Action/Milestone

• Authorization to Proceed (ATP) decision for the acquisition of the JPSS-2 OMPS-LP is expected by the end of September 2011

Project Risks

• Drafting a Level 1 Requirements Document (L1RD) and securing an agreement between the JPSS Program and NOAA for the acquisition of the OMPS-LP instrument for JPSS-2
• Negotiating an agreement between NASA/GSFC and NOAA/NESDIS/NCDC for the R2O transition of OMPS-LP higher-level data processing (or reprocessing) and Climate Data and Information Record (CDR/CIR) generation capabilities

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Acquisition of OMPS-LP Instrument															
2	Acquisition of Ground Segment Upgrades															
3	Acquisition of User Segment Upgrades															
3a	Analysis															
3b	Design															
3c	Development															
3d	Integration															
3e	Test															
3f	Operations															

Total Solar Irradiance Sensor (TSIS) FM-1

Purpose: Continuity of Total and Spectral Solar Irradiance Measurements
GEOSS Societal Benefit: Climate and Energy

Project Summary

• TSIS will fly on the NPP satellite and as a free-flyer in conjunction with the JPSS-2 satellite which have Launch Readiness Dates (LRDs) in late 2011 and 2018, respectively
• NOAA/NESDIS/OSD funded the acquisition of the TSIS FM-1 instrument by NASA and the Laboratory for Atmospheric and Space Physics (LASP) at the University of Colorado
• OSD is also responsible, as the instrument provider, for any required upgrades to the JPSS Common Ground Segment (CGS) and TSIS post-launch instrument support
• JPSS Program is responsible for integrating and flying the TSIS FM-1 instrument, post-launch satellite operations, data collection and initial processing, and delivering processed data via the Interface Data Processing Segment (IDPS) to the NOAA Archive

Next Action/Milestone

• Solar Irradiance Requirements Workshop is scheduled for February 23-24, 2011 at LASP in Boulder, CO
• Integration and testing of the TSIS FM-1 instrument is scheduled to begin on June 10, 2011

Project Risks

• Finalizing the Level 1 Requirements Document (L1RD) for TSIS FM-1
• Conducting a mission trade study in conjunction with the JPSS Program to determine the most efficient launch option for TSIS FM-1
• Negotiating an agreement between NASA/GSFC, LASP, and NOAA/NESDIS/NCDC for the Research-to-Operations (R2O) transition of TSIS higher-level data processing (or reprocessing) and Climate Data and Information Record (CDR/CIR) generation capabilities

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Acquisition of TSIS FM-1 Instrument															
2	Acquisition of Ground Segment Upgrades															
3	Acquisition of User Segment Upgrades															
3a	Analysis															
3b	Design															
3c	Development															
3d	Integration															
3e	Test															
3f	Operations															

Other Tasks

- Drafting slides for presentation to the NOAA Assistant Administrator for Satellite and Information Services regarding the Research-to-Operations (R2O) transition of CERES operations and data processing capabilities
  - Task was changed to drafting a white paper proposal instead of a presentation
  - Forwarded the draft white paper to John Bates on January 28th; awaiting his feedback
  - Prepared slides for John Bates to use in discussions with NESDIS/OSD on February 17th
- Reviewing cost models for possible application to NCDC's end-to-end Data Stewardship system
  - Completed a Work Breakdown Structure (WBS) for the end-to-end Data Management/Data Stewardship process cost model; provided a copy to Ed Kearns on February 16th; awaiting his feedback
- Participated in Solar Irradiance Requirements Workshop at the University of Colorado's Laboratory for Atmospheric and Space Physics (UC/LASP) via teleconference/WebEx on February 23rd and 24th
- Continuing to forward FY 2011 Grants Program proposals to mail reviewers
  - 82% of mail reviewers have been sent proposals
  - 49% of mail reviews returned

Climate Data Records

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as of Jan 31, 2011

Activities

Recent Accomplishments:

NCDC Climate Modeling Stewardship (03/2011)

•Completed Rich Inventory System for Jason-2/OSTM; now publicly available

•Drafted Climate-Raw Data Record (C-RDR) VIIRS specification that defines data and metadata content.

•Completed a major revision of NCDC R2O guidelines and General Programming standards documents; guidelines posted on NCDC CDR web site.

• Completed maturity assessment of the 7 CDRs selected for transition to operations in FY2011

•Designed and initiated a major upgrade to CDR Web site

NCDC Climate Modeling Program Planning (03/2011)

• NOAA reviewed and approved NPOESS TSIS and CERES FM-6 Ground System Implementation Plan, Version 2.0

Schedule

Selected Milestones	FY11 Q1	FY11 Q2	FY11 Q3	FY11 Q4	Status
NCDC Climate Modeling Stewardship					
Rich Inventory System for Jason-2/OSTM made publicly available	X				100%
Complete draft version of VIIRS Climate RDR product specification document, including data contents and metadata.		X			50%
Assess FY2011 CDRs for transition to Initial Operating Capability (IOC)	X				100%
NCDC Climate Modeling Program Planning					
Complete Implementation Plans for CERES, TSIS and NPP CDRs, Version 2		X			100%
Revise initial Architecture Plans for CERES, TSIS and NPP CDRs		X			60%

Key Issues/Risks

Risk:

NPOESS Preparatory Project (NPP) -- Climate RDR system development depends on operational software under development at NASA. Schedule requires on-time software receipt and porting to the Climate Data Record processing environment.

Mitigation:

Working closely with NASA personnel and testing NASA implementation of the pre-release operational code.

Budget

Obligations

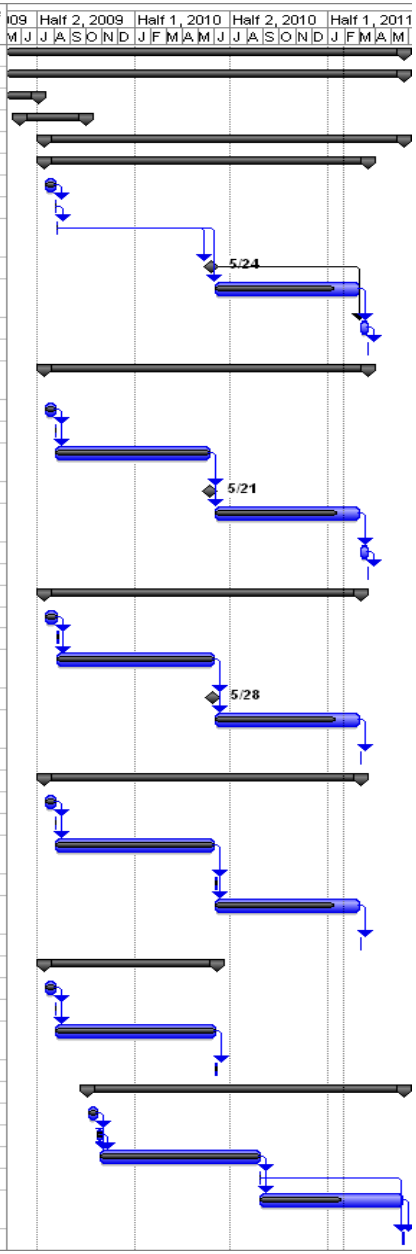
FY10 ($K)	FY10 Qtr 1	Qtr2	Qtr3	Qtr4	FY11 Q1
Planned	4,950	4,950	4,950	4,950	4,950
Actual	4,948	4,948	4,948	4,948	4,948
Variance	2	2	2	2	2

Disbursements

FY10 ($K)	FY10 Qtr 1	Qtr2	Qtr3	Qtr4	FY11 Q1
Planned	1,218	2,189	3,125	3,728	4,331
Actual	676	1,969	2,933	3,676	4,096
Variance	-542	-220	-192	(52)	(235)

Climate Data Records Schedule

ID	Task Name	% Complete	Planned Finish	Actual Finish	Baseline Finish	Total Slack	Variance
1105	**Climate Data Records**	**92%**	**Tue 5/24/11**	**NA**	**Wed 5/25/11**	**114 days**	
1106	**NCDC Climate Modeling Stewardship**	**89%**	**Tue 5/24/11**	**NA**	**Wed 5/25/11**	**114 days**	
1107	**Stakeholder/Execution Team Coordination**	**100%**	**Fri 7/3/09**	**Fri 7/3/09**	**Fri 7/3/09**	**0 days**	
1109	**Acquisition Planning and Award**	**100%**	**Thu 10/1/09**	**Thu 10/1/09**	**Thu 10/1/09**	**0 days**	
1126	**Implementation and Integration**	**88%**	**Tue 5/24/11**	**NA**	**Wed 5/25/11**	**114 days**	
1127	**Algorithm Development and Processing (to ensure data accuracy)**	**79%**	**Thu 3/17/11**	**NA**	**Mon 3/21/11**	**162 days**	
1128	Phase 1 - Draft algorithm project plan for ocean surface CDRs	100%	Fri 7/31/09	Fri 7/31/09	Fri 7/31/09	0 days	
1129	NOAA Test/Review and Acceptance of algorithm development plan	100%	Wed 8/5/09	Wed 8/5/09	Wed 8/5/09	0 days	
1130	Phase 2 - Design and test scientific software code for production and testing of ocean surface and atmosphere CDRs	100%	Thu 8/6/09	Thu 8/6/09	Thu 6/3/10	0 days	
1131	NOAA Test/Review and Acceptance of algorithms	100%	Mon 5/24/10	Mon 5/24/10	Tue 6/8/10	0 days	
1132	Phase 3 - Implementation and documentation of ocean surface and atmosphere CDRs	82%	Fri 2/25/11	NA	Wed 3/2/11	163 days	
1133	NOAA Final Testing of completed project to improve CDR processin	0%	Mon 3/14/11	NA	Wed 3/16/11	162 days	
1134	NOAA Review and Acceptance of completed project	0%	Thu 3/17/11	NA	Mon 3/21/11	162 days	
1135	**Calibration and Validation Characterization of Data (align data with decision tools)**	**90%**	**Thu 3/17/11**	**NA**	**Thu 3/17/11**	**162 days**	
1136	Phase 1 - Produce plan for calibration and validation characterizatior	100%	Fri 7/31/09	Fri 7/31/09	Fri 7/31/09	0 days	
1137	NOAA Test/Review and Acceptance of plan	100%	Wed 8/5/09	Wed 8/5/09	Wed 8/5/09	0 days	
1138	Phase 2 - Development and evaluation of cal/val algorithms and products for land surface CDRs	100%	Wed 5/19/10	Wed 5/19/10	Mon 5/31/10	0 days	
1139	NOAA Test/Review and Acceptance of plan	100%	Fri 5/21/10	Fri 5/21/10	Tue 6/1/10	0 days	
1140	Phase 3 - Delivery, assessment, and documentation of cal/val characterization results	84%	Fri 2/25/11	NA	Fri 2/25/11	163 days	
1141	Final Testing of completed project to align data with decision tools	0%	Mon 3/14/11	NA	Mon 3/14/11	162 days	
1142	NOAA Test/Review and Acceptance of completed project	0%	Thu 3/17/11	NA	Thu 3/17/11	162 days	
1143	**Science and Climate Information Records**	**92%**	**Thu 3/3/11**	**NA**	**Mon 3/7/11**	**172 days**	
1144	Phase 1 - Produce plan for climate information record open data acc	100%	Wed 8/5/09	Wed 8/5/09	Wed 8/5/09	0 days	
1145	NOAA Test/Review and Acceptance of plan	100%	Mon 8/10/09	Mon 8/10/09	Mon 8/10/09	0 days	
1146	Phase 2 - Develop and evaluate climate information record open data access system source code	100%	Thu 5/27/10	Thu 5/27/10	Thu 6/3/10	0 days	
1147	NOAA Test/Review and Acceptance of plan	100%	Fri 5/28/10	Fri 5/28/10	Tue 6/8/10	0 days	
1148	Phase 3 - Document codes and products for climate information record open data access system	83%	Fri 2/25/11	NA	Wed 3/2/11	173 days	
1149	NOAA Test/Review and Acceptance of completed project	0%	Thu 3/3/11	NA	Mon 3/7/11	172 days	
1150	**Long Term Stewardship**	**91%**	**Thu 3/3/11**	**NA**	**Thu 3/3/11**	**172 days**	
1151	Phase 1 - Draft metadata and data discovery plan for satellite and in	100%	Fri 7/31/09	Fri 7/31/09	Fri 7/31/09	0 days	
1152	NOAA Test/Review and Acceptance of plan	100%	Wed 8/5/09	Wed 8/5/09	Wed 8/5/09	0 days	
1153	Phase 2 - Develop and test metadata acquisition and data discovery software code	100%	Thu 5/27/10	Thu 5/27/10	Mon 5/31/10	0 days	
1154	NOAA Test/Review and Acceptance of plan	100%	Thu 6/3/10	Thu 6/3/10	Thu 6/3/10	0 days	
1155	Phase 3 - Implementation and documentation of metadata management system for satellite and in situ data	82%	Fri 2/25/11	NA	Fri 2/25/11	173 days	
1156	NOAA Test/Review and Acceptance of completed project	0%	Thu 3/3/11	NA	Thu 3/3/11	172 days	
1157	**Applications- Mitigation and Adaptation**	**100%**	**Thu 6/3/10**	**Thu 6/3/10**	**Thu 6/3/10**	**0 days**	
1158	Phase 1 - Produce planning document for sectoral mitigation and ac	100%	Fri 7/31/09	Fri 7/31/09	Fri 7/31/09	0 days	
1159	NOAA Test/Review and Acceptance of plan	100%	Wed 8/5/09	Wed 8/5/09	Wed 8/5/09	0 days	
1160	Phase 2 - Develop analysis tools and techniques to reveal mitigation and adaptation revealed in CDRs and CIRs	100%	Mon 5/31/10	Mon 5/31/10	Mon 5/31/10	0 days	
1161	NOAA Test/Review and Acceptance of completed project	100%	Thu 6/3/10	Thu 6/3/10	Thu 6/3/10	0 days	
1162	**Project Planning and Management**	**80%**	**Tue 5/24/11**	**NA**	**Wed 5/25/11**	**114 days**	
1163	Phase 1 - Update existing draft CDR project management plan	100%	Mon 10/19/09	Mon 10/19/09	Mon 10/19/09	0 days	
1164	NOAA Test/Review and Acceptance of plan	100%	Mon 10/26/09	Mon 10/26/09	Mon 10/26/09	0 days	
1165	Phase 2 - Develop project requirements plan, schedules plan, budg	100%	Mon 8/23/10	Mon 8/23/10	Mon 8/23/10	0 days	
1166	NOAA Test/Review /Acceptance of plan	100%	Thu 8/26/10	Thu 8/26/10	Thu 8/26/10	0 days	
1167	Phase 3 - Maintain and update project requirements plan, schedules plan, budgets and performance metrics for CDRs	56%	Thu 5/19/11	NA	Fri 5/20/11	114 days	
1168	NOAA Test/Review and Acceptance of completed project	0%	Tue 5/24/11	NA	Wed 5/25/11	114 days	



Climate Data Records Schedule

ID	Task Name	% Complete	Planned Finish	Actual Finish	Baseline Finish	Total Slack	Variance
1105	**Climate Data Records**	**92%**	**Tue 5/24/11**	**NA**	**Wed 5/25/11**	**114 days**	
1106	**NCDC Climate Modeling Stewardship**	**89%**	**Tue 5/24/11**	**NA**	**Wed 5/25/11**	**114 days**	
1169	**NCDC Climate Modeling Program Planning**	**100%**	**Wed 12/8/10**	**Wed 12/8/10**	**Wed 12/8/10**	**0 days**	
1170	**Stakeholder/Execution Team Coordination**	**100%**	**Fri 7/3/09**	**Fri 7/3/09**	**Fri 7/3/09**	**0 days**	
1172	**Acquisition Planning and Award**	**100%**	**Thu 10/1/09**	**Thu 10/1/09**	**Thu 10/1/09**	**0 days**	
1190	**Implementation and Integration**	**100%**	**Wed 12/8/10**	**Wed 12/8/10**	**Wed 12/8/10**	**0 days**	
1191	**Climate Data Records Project Management Office**	**100%**	**Wed 12/8/10**	**Wed 12/8/10**	**Wed 12/8/10**	**0 days**	
1192	**Ground system plans for NPOESS Preparatory Project CDRs**	**100%**	**Wed 10/6/10**	**Wed 10/6/10**	**Wed 10/6/10**	**0 days**	
1193	Draft Implementation Plan- develop detailed program requireme	100%	Tue 12/1/09	Tue 12/1/09	Tue 12/1/09	0 days	
1194	NOAA review/approval of plan	100%	Fri 12/4/09	Fri 12/4/09	Fri 12/4/09	0 days	
1195	Version 1 implementation plan - Add incremental requirements, define major data structures for projects, define all interfaces, develop schedule and acceptance criteria	100%	Fri 2/26/10	Fri 2/26/10	Mon 3/1/10	0 days	
1196	NOAA review/approval of plan	100%	Wed 3/10/10	Wed 3/10/10	Thu 3/4/10	0 days	
1197	Draft System architecture plan- define computational flow for all projects, define incremental software deliveries, acceptance tests, and anomaly resolution	100%	Fri 4/9/10	Fri 4/9/10	Tue 6/1/10	0 days	
1198	NOAA review/approval of plan	100%	Tue 5/11/10	Tue 5/11/10	Fri 6/4/10	0 days	
1199	Version 2 implementation plan - Add incremental information for all plan components, define final configuration management and life cycle and sustainment components	100%	Fri 10/1/10	Fri 10/1/10	Fri 10/1/10	0 days	
1200	NOAA review/approval of plan	100%	Wed 10/6/10	Wed 10/6/10	Wed 10/6/10	0 days	
1201	**Ground system implementation plan for NPOESS C1 TSIS**	**100%**	**Wed 11/10/10**	**Wed 11/10/10**	**Wed 11/10/10**	**0 days**	
1202	Draft Implementation Plan- develop detailed program requireme	100%	Mon 1/4/10	Mon 1/4/10	Thu 1/14/10	0 days	
1203	NOAA review/approval of plan	100%	Thu 1/7/10	Thu 1/7/10	Tue 1/19/10	0 days	
1204	Version 1 implementation plan - Add incremental requirements, define major data structures for projects, define all interfaces,	100%	Thu 3/25/10	Thu 3/25/10	Fri 4/2/10	0 days	
1205	NOAA review/approval of plan	100%	Wed 4/7/10	Wed 4/7/10	Wed 4/7/10	0 days	
1206	Draft System architecture plan- define computational flow for all projects, define incremental software deliveries, acceptance tests, and anomaly resolution	100%	Fri 7/2/10	Fri 7/2/10	Fri 7/2/10	0 days	
1207	NOAA review/approval of plan	100%	Wed 7/7/10	Wed 7/7/10	Wed 7/7/10	0 days	
1208	Version 2 implementation plan - Add incremental information for all plan components, define final configuration management and life cycle and sustainment components	100%	Thu 11/4/10	Thu 11/4/10	Thu 11/4/10	0 days	
1209	NOAA review/approval of plan	100%	Wed 11/10/10	Wed 11/10/10	Wed 11/10/10	0 days	
1210	**Ground system plans for NPOESS C1 CERES FM-6**	**100%**	**Wed 12/8/10**	**Wed 12/8/10**	**Wed 12/8/10**	**0 days**	
1211	Draft Implementation Plan- develop detailed program requireme	100%	Thu 1/14/10	Thu 1/14/10	Fri 2/5/10	0 days	
1212	NOAA review/approval of plan	100%	Wed 2/10/10	Wed 2/10/10	Wed 2/10/10	0 days	
1213	Version 1 implementation plan - Add incremental requirements, define major data structures for projects, define all interfaces, develop schedule and acceptance criteria	100%	Thu 4/22/10	Thu 4/22/10	Fri 5/7/10	0 days	
1214	NOAA review/approval of plan	100%	Wed 5/5/10	Wed 5/5/10	Wed 5/12/10	0 days	
1215	Draft System architecture plan- define computational flow for all projects, define incremental software deliveries, acceptance tests, and anomaly resolution	100%	Fri 8/6/10	Fri 8/6/10	Fri 8/6/10	0 days	
1216	NOAA review/approval of plan	100%	Wed 8/11/10	Wed 8/11/10	Wed 8/11/10	0 days	
1217	Version 2 implementation plan - Add incremental information for all plan components, define final configuration management and life cycle and sustainment components	100%	Thu 12/2/10	Thu 12/2/10	Thu 12/2/10	0 days	
1218	NOAA review/approval of plan	100%	Wed 12/8/10	Wed 12/8/10	Wed 12/8/10	0 days